

Applicants do not agree that search and Examination of Groups I, II and III together pose any undue burden on the USPTO, as the search fields are closely related. Applicants urge reconsideration. Nonetheless, to move Prosecution forward, Applicants reaffirm the election of Group I, Claims 1-13, with traverse. Applicants further reserve the right to prosecute any non-elected claims in the future, without prejudice.

2. No response necessary.

3. The Information Disclosure Statement of September 18, 2001 is said to fail to comply with 37 CFR § 1.98(a)(3). Concurrently with this Response, Applicants are submitting an Information Disclosure Statement with an English language version and/or an abstract of the foreign language documents. Withdrawal of this Objection is respectfully requested.

#### **Claim Objections**

4. Claim 4 stands Objected to. The claim has been clarified as suggested by the Examiner. Withdrawal of this Objection is respectfully requested.

#### **Rejections Under 35 USC § 112**

5. & 6. *Claims 1-9 stand rejected under 35 USC § 112, second Paragraph*

The Examiner states that no clear definition of the term "bulky ligand" was found in the Specification. Applicants do not agree. Paragraph [013] of the specification defines bulky ligand. Nonetheless, Applicants have inserted language into the Specification from US 6,207,606 which has been incorporated by reference into the original Specification.

Regarding the terms "metallocene-type" and "cyclopentadienyl-type" the Examiner states "... indicates that the intended scope is substantially larger than that which the ordinary skilled worker would infer from the claims". Applicants respectfully note that a) the Applicants can be their own lexicographer, b) Applicants have defined the terms in such a way as to enable one of skill in the metallocene arts to understand these terms (in fact, from pages 3-11, encompassing paragraphs [011] – [030] Applicants devote substantial space to defining these terms), and c) the breadth of a claim does not render it

indefinite, if a claim is too broad, as alleged, then prior art should be available to show that.

Withdrawal of the rejection is respectfully requested.

#### **Rejections Under 35 USC § 102**

7. & 8. Claims 1, 2, 4, 5 and 7 stand rejected under 102(b) as anticipated by "*Organometallics*" 1994 (Chen, et al.).

Claims 1 and 2 have been cancelled. Claim 4 has been amended to include the phraseology "for polymerizing ethylene alone or in combination with one or more olefin(s)", which is not found in Chen. Claims 5 and 7 depend from claim 4.

Accordingly, as amended, the present claims are not anticipated by Chen. Withdrawal of the Rejection is respectfully requested.

9. Claims 1, 2, 4, 5, and 7-12 stand rejected under 35 USC § 102(b) as anticipated by US 5,491,205 (Langhauser, et al.).

Langhauser suggests spiro type compounds where the metal "Z" is incorporated into the ring structures of each ligand (Y1 and Y2). Further, those of skill in the present art know that the term "spiro" indicates a structure with 2 rings connected by a single common atom, as seen in the drawings of Langhauser. The presently claimed structure is contrasted with this, Applicants paragraph [012] clearly spells out that the germanium element(s) serves as the bridge and the bridge includes atoms forming a ring or ring system containing the germanium element(s). Applicants' Cp ring or rings are in turn bonded to the germanium, the cyclic portion of the "cyclic germanium bridge" is not bonded to either of the Cp rings that are bridged by the cyclic germanium bridge. Further explanation is provided on page 9, lines 1-2, "... cyclic bridging group Ge may be represented by R'<sub>2</sub>Ge where the two R's [sic] are joined to form a ring or ring system.". In a spiro system, the Rs are not joined.

Accordingly, Langhauser does not anticipate the above claims. Withdrawal of the Rejection is respectfully requested.

**Rejections Under 35 USC § 103**

10. & 11. Claims 1-12 stand rejected under 35 USC § 103 (a) as unpatentable over U.S. 5,532,396 (Winter, et al.).

Applicants respectfully point out that in Winter's examples 26 and 28, as noted by the Examiner, while exemplifying germanium, do not contain a cyclic bridge nor are they supported. Absent a cyclic bridge or support, the list of "Ms" and "Rs" at Col. 3, lines 56-63, and the list of supports at Col. 11, lines 45-53, pointed to by the Examiner, together with Winter's examples 26 and 28, constitutes at best, an impermissible "obvious to try" Rejection. Further, there must be some motivation in Winter to incorporate all three elements, and no such motivation, save for what Applicants consider "obvious to try", has been elucidated by the Examiner.

Absent any motivation to combine the elements outlined by the Examiner, save for that provided by Applicants' claims, the Rejection fails and withdrawal of the Rejection is respectfully requested.

12. Claim 6 stands Rejected as unpatentable over Langhauser.

As amended, Applicants Claim 6 depends from a claim not rejected over Langhauser. Therefore, Applicants respectfully submit that Claim 6 is not rendered obvious over Langhauser. Withdrawal of the Rejection is respectfully requested.

13. & 14. No response necessary.

All of the Examiner's Rejections and Objections have been addressed.

The claims are in condition for allowance.

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SOUTHWEST PATENT SVS

PAGE 85  
P. 12

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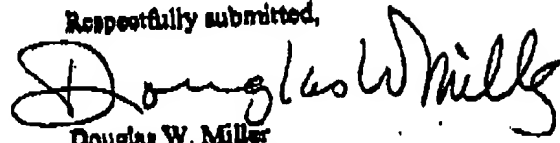
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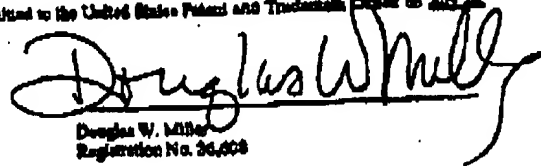
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APPENDIX A  
SPECIFICATION MARKED-UP TO SHOW CHANGES MADE

Page 1

At page 4, please insert the following starting at line 8:

Generally, bulky ligand transition metallocene-type catalyst compounds include half and full sandwich compounds having one or more bulky ligands including cyclopentadienyl structures or other similar functioning structure such as pentadiene, cyclooctatetraendiyl and imides. The bulky ligands are capable of  $\eta^5$  bonding to a transition metal atom, for example from Group 4, 5 and 6 of the Periodic Table of Elements. Non-limiting examples of catalyst components and catalyst systems are discussed in for example, U.S. Pat. Nos. 4,530,914, 4,871,705, 4,937,299, 5,124,418, 5,017,714, 5,120,867, 5,210,352, 5,278,264, 5,278,119, 5,304,614, 5,324,800, 5,347,025, 5,350,723, 5,391,790, 5,391,789, 5,399,636, 5,539,124, 5,455,366, 5,534,473, 5,684,098, 5,693,730, 5,698,634, 5,710,297, 5,712,354, 5,714,427, 5,714,555, 5,728,641 and 5,728,839 all of which are herein fully incorporated by reference. Also, the disclosures of European publications EP-A-0 591 756, EP-A-0 520 732, EP-A- 0 420 436, EP-B1 0 485 822, EP-B1 0 485 823, EP-A2-0 743 324 and EP-B1 0 518 092 and PCT publications WO 91/04257, WO 92/00333, WO 93/08221, WO 93/08199, WO 94/01471, WO 96/20233, WO 97/15582, WO 97/19959, WO 97/46567, WO 98/01455 and WO 98/06759 are all herein fully incorporated by reference for purposes of describing typical bulky ligand transition metal metallocene-type catalyst compounds and catalyst systems.

APPENDIX B  
CLAIMS MARKED-UP TO SHOW CHANGES MADE

Page 1

1. CANCELLED

2. CANCELLED

3. CANCELLED

4. (Once Amended) [The] A catalyst system [of claim 1] for polymerizing ethylene alone or in combination with one or more olefin(s), comprising a cyclic germanium bridged bulky ligand metallocene-type catalyst compound and an activator, wherein the cyclic germanium bridged bulky ligand metallocene-type catalyst compound is represented by the formula:



where M is a Group 3 to 7 transition metal, each of  $L^A$  and  $L^B$  is an unsubstituted or substituted, cyclopentadienyl ligand or cyclopentadienyl-type bulky ligand bonded to M;  $(R'GeR')_x$  is a cyclic bridging group bridging  $L^A$  and  $L^B$ , and the two R's form a cyclic ring or ring system with Ge; independently, each Q is a monoanionic ligand, or optionally two Q's together form a divalent anionic chelating ligand; and where n is 0, 1 or 2 depending on the formal oxidation state of M, and x is an integer from 1 to 4.

6. (once amended) The catalyst system of claim [1]4 wherein the catalyst system is supported.

8. (once amended) The catalyst system of claim [1]4 wherein the cyclic germanium bridged bulky ligand metallocene-type catalyst compound is represented by the formula:



where M is a Group 4, 5, 6 transition metal,  $L^A$  and  $L^B$  are bonded to M and are different,  $L^A$  and  $L^B$  are selected from the group consisting of unsubstituted or substituted, cyclopentadienyl ligands or unsubstituted or substituted, cyclopentadienyl-type bulky ligand;  $(R'GeR')_x$  is a cyclic bridging group bridging  $L^A$  and  $L^B$ , and the two R's form a cyclic ring or ring system with Ge; independently, each Q is a monoanionic ligand, or optionally two Q's together form a divalent anionic chelating ligand; and where n is 0, 1 or 2 depending on the formal oxidation state of M, and x is an integer from 1 to 4.

APPENDIX B  
CLAIMS MARKED-UP TO SHOW CHANGES MADE

Page 2

13. (once amended) The catalyst system of claims [1]4 or 8 where the cyclic germanium bridged bulky ligand metallocene-type catalyst compound is selected from one of the group consisting of cyclotrimethylenegermyl(tetramethyl cyclopentadienyl) (cyclopentadienyl) zirconium dichloride, cyclotetramethylenegermyl (tetramethyl cyclopentadienyl) (cyclopentadienyl) zirconium dichloride, cyclotrimethylenegermyl(tetramethyl cyclopentadienyl) (2-methyl indenyl) zirconium dichloride, cyclotrimethylenegermyl(tetramethyl cyclopentadienyl) (3-methyl cyclopentadienyl) zirconium dichloride, cyclotrimethylenegermyl (tetramethyl cyclopentadienyl) (2,3,5-trimethyl cyclopentadienyl) zirconium dichloride, cyclotrimethylenegermyl bis(tetra methyl cyclopentadienyl) zirconium dichloride, cyclotetramethylenegermyl(tetramethyl cyclopentadienyl) (3-methyl cyclopentadienyl) zirconium dichloride, cyclotetramethylenegermyl bis(tetra methyl cyclopentadienyl) zirconium dichloride, 3,4-dimethylcyclotetra-methyl-3-enegermyl(tetramethyl cyclopentadienyl) (cyclopentadienyl) zirconium dichloride, 3,4-dimethylcyclotetramethyl-3-enegermylbis(tetramethyl cyclopentadienyl) zirconium dichloride, 3,4-dimethylcyclotetramethyl-3-enegermyl(tetramethyl cyclopentadienyl) (2,3,5-trimethyl cyclopentadienyl) zirconium dichloride, 3-methylcyclotetramethyl-3-enegermyl bis(tetra methyl cyclopentadienyl) zirconium dichloride, 3-methylcyclotetramethyl-3-enegermyl (tetra methyl cyclopentadienyl) (cyclopentadienyl) zirconium dichloride, 3-methylcyclotetramethyl-3-enegermyl (tetra methyl cyclopentadienyl) (3-methylcyclopentadienyl) zirconium dichloride, o-xylidenegermyl bis(tetra methyl cyclopentadienyl) zirconium dichloride, o-xylidenegermyl(tetramethyl cyclopentadienyl) (cyclopentadienyl) zirconium dichloride, and o-xylidenegermyl(tetramethyl cyclopentadienyl) (3-methylcyclopentadienyl) zirconium dichloride.

Please add the following claim:

40. (new) The catalyst system of claim 4 wherein the bulky ligands are differently substituted.